

PART 3

RESEARCH AND DEVELOPMENT SALES OPPORTUNITIES

MAJOR MILITARY RESEARCH AND DEVELOPMENT ACTIVITIES

The DoD encourages participation by small concerns, including those owned by women and by disadvantaged persons, in its R&D programs. DoD seeks the most advanced scientific knowledge attainable and the best possible equipment and systems that can be devised and produced. It is the government's policy (FAR 35.008), in awarding an R&D contract, to select the organization ". . . that proposes the best ideas or concepts and has the highest competence in the specific field of science or technology involved." You should evaluate your firm critically before seeking a government R&D contract. Be sure that your firm is as well qualified as others who may want the same award. The telephone numbers in the lists which follow are for the small business specialists at the research organizations. Also, see the description, in Part 1 of this booklet, of the Small Business Innovation Research (SBIR) program.

DEPARTMENT OF THE ARMY

U.S. Army Space and Strategic Defense Command
P.O. Box 1500
Huntsville, AL 35807-3801

(205) 955-3412

Principal interests: Advanced R&D in the fields of radar, interceptors, sensors, discrimination, and data processing applicable to Ballistic Missile Defense Organization (BMDO); analytical studies of radar observable, bulk discrimination technology; algorithm development; advanced propulsion technology; integrated targets for the entire BMDO; test and evaluation of advanced technology components of computers, propulsion systems, sensors systems, and radar systems; analysis of new and novel applications of science and engineering seeking revolutionary approaches to ballistic missile defense concepts; threat analysis.

U.S. Army Materiel Systems Analysis Agency
Aberdeen Proving Ground, MD 21005

(410) 278-6614

Principal interests: The Army Materiel Systems Analysis Agency (AMSAA) has the overall broad mission of providing a central technical capability for systems analysis within Army Materiel Command (AMC) and for continuing improvement in the capability and performance of the total command wide systems analysis activity. This includes the conduct of systems analysis type studies, investigations, functions and activities; the evaluation of concepts and proposals on a broad AMC-wide base; and the advancement, improvement, and dissemination of technique,

method, and methodology associated with the system analysis function. In addition, AMSAA serves as center for reliability, availability, and maintainability for Army systems.

U.S. Army Research Laboratory (919) 549-4355
Attn: AMXRO-PR
Post Office 12211
Research Triangle Park, NC 27709-2211

Principal interests: Research proposals, on a competitive basis, from educational institutions, nonprofit organizations, and private industry in the fields of mathematics, physics, engineering, chemistry, electronics, materials, biology and geoscience.

U.S. Army Research Laboratory (301) 394-1076
Attn: AMSCL-PR-SB
2800 Powder Mill Road
Adelphi, MD 20783-1145

Principal interests: Research and technology development efforts provide scientific and technological innovation in ten fields of technical endeavor; lethality; survivability enhancement; assessment; sensors, signatures and signal processing; power resources; materials and structures; battlefield environmental effects; human factors; advanced computing and advanced electronics.

Associated installations:

U.S. Army Harry Diamond Laboratories (301) 394-1076
2800 Powder Mill Road
Adelphi, MD 20783-1145

U.S. Army Research Office (919) 549-4267
Attn: SLCRO-PR
P. O. Box 12211
Research Triangle Park, NC 27709-2211

Materials Technology Laboratory (617) 923-5005
Attn: SLCMT-PR
Watertown, MA 02172-0001

U.S. Army Electronics Technology and (201) 544-4918
Devices Laboratory
Attn: SLCET-DP
Fort Monmouth, NJ 07703-5000

U.S. Army Vulnerability Assessment (505) 678-8110
Attn: SLCVH-RMA
White Sands Missile Range, NM 88002-5513

Associated installations: Site Branches

Adelphi Site Contracts Branch (301) 394-1090
Attn: AMSRL-OP-AL
2800 Powder Mill Road
Adelphi, MD 20781-1145

Watertown Site Contracts Branch (617) 923-5255
Attn: AMSRL-OP-WT
Watertown, MA 02172-0001

Fort Monmouth Site Contracts Branch (908) 544-4371
Attn: AMSRL-OP-FM
Fort Monmouth, NJ 07703-5000

White Sands Missile Range Contracts Branch (505) 678-8110
Attn: AMSRL-OP-PR-WS
White Sands Missile Range, NM 88002-5513

U.S. Army Natick Research Development (508) 651-4995
and Engineering Center, ATTN: STRNC-ZSB
Natick, MA 07160-5008

Principal interests: R&D in the physical and biological sciences and engineering to meet military requirements in commodity areas of textiles, clothing, body armor, footwear, insecticides and fungicides, subsistence, containers, food service, equipment (as assigned) tentage and equipage, and air delivery equipment.

U.S. Army Belvoir Research, Development (703) 704-2218
and Engineering Center (BRDEC)
Fort Belvoir, VA 22060-5606

Principal interests: **Mobility/countermobility**; survivability; energy; and logistics of mobility equipment. These include countermine, counterobstacle/construction equipment, gap closing/bridging, obstacles/barriers, field fortifications, camouflage, physical security, tunnel detection, topographic equipment, tactical sensors, electric power, fuels and lubricants, heaters and air conditioners, water supply, fuels handling, materials handling equipment, marine craft, and railway and utility equipment. Developing photo voltaic solar systems for use by all military services. Engineers and procures topographic equipment, landing mats, and insect and rodent control equipment developed by other Army organizations. In addition, performs the R&D procurement functions for other Fort Belvoir-based organizations including: Night Vision and Electro Optics Laboratory (NV&EOL), the DoD Project Manager for Mobile Electric Power, and Product Manager for Physical Security Equipment.

U.S. Army Aviation and Troop Command (314) 263-2223
Attn: AMSAT-C-V
Bldg. 102E, 4300 Goodfellow Blvd.
St. Louis, MO 63120-1798

Associated Installations:

**The Propulsion Directorate
NASA/Lewis Research Center
2100 Brookpart Road
Cleveland, OH 44135-3127**

(216) 433-3703

**The Aerostructures Directorate
NASA/Langley Research Center
Hampton, VA 23665-5225**

(804) 864-2447

**Aviation Applied Technology Directorate
Fort Eustis, VA 23604-5577**

(804) 878-2208

Principal interests: R&D of new helicopter systems, support of qualification testing of turbine engines, development of improved Army aircraft support for extreme environments, development and evaluation of prototype hardware for fueling and **defueling** equipment for use in combat areas and solving fuel contamination problems. Conducts research in both exploratory and advanced development in subsonic areas of application.

**U.S. Army Communications-Electronics
Command
Attn: AM SEL-SB
Fort Monmouth, NJ 07703-5005**

908) 532-4511

Principal interests: R&D and acquisition, to include first production and initial fielding of communications, tactical data, and command and control systems. R&D programs related to communications, electronics intelligence, electronic warfare, reconnaissance surveillance, target acquisition, night vision, combat identification, position locations, tactical satellites, maneuver control, common hardware/software, sensors, power **sources** and other associated equipment.

**U.S. Army Missile Command (MICOM)
Attn: AMSMI-SB/CM
Redstone Arsenal
Huntsville, AL 35898-5150**

(205) 876-5441

Principal interests: R&D associated with free rockets, guided missiles, ballistic missiles, targets, air defense weapons systems, fire control coordination equipment, related special purpose and **multisystem** test equipment, missile launching and ground support equipment, metrology and calibration equipment, and other associated equipment.

**U.S. Army Tank Automotive Command
Attn: AMSTA-CB
Warren, MI 48397-5000**

(313) 574-5388

Principal interests: R&D associated with combat tactical and special purpose vehicles. R&D programs related to advanced concepts, development and engineering of combat and tactical vehicles, including automotive subsystems and components. Component programs involve engines, transmissions, suspensions, electrical and miscellaneous vehicular components.

U.S. Army Test & Evaluation Command (410) 278-1201
Attn: AMSTE-PR
Aberdeen Proving Command, MD 21005-5005

Associated Installations:

U.S. Army Aberdeen Proving Ground (410) 278-3878
Attn: STEDP-DOC
Aberdeen Proving Ground, MD 21005-5005

Principal interests: R&D, production and post production testing of weapons, systems, ammunition, combat and support vehicles, and individual equipment.

U.S. Army Dugway Proving Ground (801) 831-2101
Attn: STEDP-DOC
Dugway, UT 84022-5202

Principal interests: Conducts field and laboratory tests to evaluate chemical and radiological weapons and defense systems and materiel, as well as defense research.

U.S. Army Jefferson Proving Ground (812) 273-7281
Attn: STEJP-EC-C
Madison, IN 47250-5100

Principal interests: Processing, assembling, and acceptance testing of ammunition and ammunition components. Receives, stores, maintains, and issues assigned industrial stocks.

U.S. Army White Sands Missile Range (505) 678-6285
Attn: STEYP-CR
White Sands, NM 88002-5007

Principal interests: Conducts testing and evaluation of Army missiles and rockets. Operates the United States' only land based national range to support missile and other testing for the Army, Air Force, Navy, and National Aeronautics and Space Administration.

U.S. Army Yuma Proving Ground (602) 328-3285
Attn: STEYP-PC
Yuma Proving Ground, AZ 85365-9106

Principal interests: R&D, production and post production testing of weapons, systems, ammunition, and combat and support vehicles. Conducts environmental tests, air drop and air delivery tests, and participates in engineering testing of combat and support items.

U.S. Army Engineer Waterways Experiment Station
P.O.Box 631
Vicksburg, MS 39180-6199

(601) 634-2424

Principal interests: Research in support of the civil and military mission of the Chief of Engineers and other Federal agencies, through the operation of laboratories in the broad fields of hydraulics, soil mechanics, concrete, engineering geology, rock mechanics, pavements, expedient construction, nuclear and conventional weapons, protective structures, vehicle mobility, environmental relationships, aquatic weeds, water quality, dredge material and nuclear and chemical explosives excavation.

U.S. Army Cold Regions Research and Engineering Laboratory
P.O. Box 282, 72 Lyme Road
Hanover, NH 03755-1290

603) 646-4390

Principal interests: Research pertaining to characteristics and events unique to cold regions, especially winter conditions, including design of facilities, structures, and equipment and methods for building, traveling, living, and working in cold environments.

U.S. Army Construction-Engineering Research Laboratory
P.O. Box 9005
Campaign, IL 61820-1305

(217) 373-6798

Principal interests: Research in the materials, utilities, energy, and structures of all buildings except those specifically designed for cold regions. Conducts systems oriented R&D on the life-cycle requirements of military facilities and their management (the life cycle includes all the processes of planning, design, and construction through maintenance and disposition). Integrates technological developments into construction. Develops corrosion mitigation systems for structures utilizing improved organic coatings, cathodic protection methods, and alternative materials selection. Develops procedures and technology to protect and enhance environmental quality.

U.S. Army Topographic Engineering Center
Telegraph Leaf Road, Bldg. 2592
Fort Belvoir, VA 22060-5546

(703) 355-2608

Principal interests: R&D in the topographic sciences including mapping, point positioning, and military geographic information. Provides scientific and technical advisory services to support geographic intelligence and environmental resources inventory requirements.

U.S. Army Medical Research, Development, Acquisition Logistics Command
Attn: SGRD-ACQ
Fort Detrick

(301) 619-7216

Frederick, MD 21702-5012

Associated Installation:

**Walter Reed Army Institute of Research
Washington, DC 20307-5100**

(202) 576-2039

Principal interests: Basic and applied research and development relating to medical sciences, supplies and equipment.

DEPARTMENT OF THE NAVY

**Office of Naval Research
Code SBIR 412E
800 North Quincy Street, Room 502
Arlington, VA 22217-5000**

(703) 696-4286

Principal interests: Basic research and technology. Contracts are generally awarded in response to unsolicited proposals. The major areas of interest are: mathematical and physical sciences; environmental sciences; engineering sciences; life sciences; aviation and aerospace technology; undersea technology; integrated antisubmarine warfare; surface warfare and supporting technologies; manpower, personnel, and training technology; and advanced conformal submarine acoustic sensor.

**Navy Personnel Research and Development Center
Code 022
San Diego, CA 92152-6800**

(619) 553-7805

Principal interests: Research in manpower, personnel, education and training, and human factors engineering in development and operation of Navy personnel systems.

**National Naval Medical Center
Procurement Department
8901 Wisconsin Avenue, Bldg. 54
Bethesda, MD 20889-5000**

(301) 295-0285

Principal interests: Research, development, test, and evaluation in the following technology areas: submarine medicine, aviation medicine, electromagnetic radiation, human performance, fleet health care, infectious diseases, oral and dental health.

**Naval Air Systems Command
Code 02E, Room 424
1421 Jefferson Davis Highway
Arlington, VA 22243-2000**

(703) 692-0935

Principal interests: Design, development, testing, and evaluation of airframes, aircraft engines, components, and fuels and lubricants; airborne electronic equipment, pyrotechnics, and mine countermeasures equipment; air launched weapons systems and underwater sound systems; aircraft drone and target systems; catapults, arresting gear, visual landing aids, meteorological equipment, ground handling equipment, parachutes, flight clothing, and survival equipment.

Space and Naval Warfare Systems Command

(703) 692-6091

Code SPA-OOK

2451 Crystal Drive, Room 110

Arlington, VA 22245-5200

Principal interests: RDT&E for command, control and communications; undersea and space surveillance; electronic warfare; navigational aids; electronic test equipment; electronic materials, components and devices.

Naval Facilities Engineering Command

(703) 325-8549

Code FAC-OOJ

200 Stovall Street, Room 11 N59

Alexandria, VA 22332-5000

Principal interests: R&D for new or improved materials, equipment, or engineering techniques to resolve specific engineering problems pertaining to design, construction, operation, and maintenance of shore facilities.

Naval Sea Systems Command

(703) 746-3100

Code SEA-02K

2531 Jefferson Davis Highway, Room 815

Arlington, VA 22242-5160

Principal interests: R&D, procurement, and logistics support and other material functions for all ships and craft, shipboard weapon systems and ordnance, air launched mines and torpedoes, shipboard components such as propulsion sonar search radar and auxiliary equipment; procurement, technical guidance, and supervision of operations related to salvage of stranded or sunk ships and craft.

Naval Supply Systems Command

(703) 607-2261

Code CAG-1

1931 Jefferson Davis Highway, Room 619

Arlington, VA 22241-5360

Principal interests: R&D in supply systems management techniques, including mathematical and statistical analyses, materials handling, clothing and textiles, transportation, and logistics data processing systems.

Naval Research Laboratory

(202) 767-6263

Contracts Division, Code 3204, Bldg. 57

4555 Overlook Avenue, SW

Washington, DC 20375-5000

Principal interests: Scientific research and advanced technology development for new and improved materials, equipment, techniques, systems and related operational procedures for the Navy. Fields of interest include space science and systems; environmental sciences; plasma physics; acoustics; radar; electronic warfare; marine technology; chemistry; materials; optical and radiation sciences; electronics and information technology.

Naval Construction Battalion Center
Contracts Office, Code IOG, Bldg. 90
100 23rd Avenue
Port Hueneme, CA 93043-4301

(805) 982-5066

Principal interests: RDT&E center for shore and seafloor facilities and for the support of Navy and Marine Corps construction forces.

Naval Underwater Warfare Center
Code 00SB
1176 Howell Street, Bldg. 11
Newport, RI 02840

(401) 841-2442
Ext. 270

Principal interests: Submarine warfare analysis, combat systems engineering and integration, acoustic reconnaissance and search systems, electronic warfare systems, command and control systems, combat control systems, submarine unique communications systems, submarine launchers, submarine-launched torpedoes, submarine unique antisubmarine warfare tactical missile systems, underwater acoustics for system performance prediction, subsurface target simulators, and undersea range development and operation.

Naval Air Warfare Center
Aircraft Division, Code CTOOM
Bldg. 588
Patuxent River, MD 20670-5409

(301) 826-7567

Principal interests: RDT&E of aircraft weapons systems, command and control systems, subsystems and components, external stores ordnance and explosive devices for aircraft, electrical and electronics both air and ship systems, instrumentation, data management and analyses, reliability and maintainability (R&M), integrated logistics support (ILS), systems safety, simulation planning and analysis, flight services and program operation, flight services and program operation, program training management, computer programming and operations, software/hardware integration and analysis, electronic, computer, and communication laboratory operational support, software/hardware risk management.

Naval Air Warfare Center
Weapons Division, Code CO02
China Lake, CA 93555-6000

(619) 939-2712

Principal interests: **RDT&E** center for air warfare systems (except antisubmarine warfare systems) and missile weapons systems including missile propulsion, warheads, fuses, avionics and fire control, missile guidance, and the national range/facility for parachute test and evaluation.

**Naval Air Warfare Center
Training Systems Division
Contracting Department, Code OS
12350 Research Parkway
Orlando, FL 32826-3224**

(407) 380-8253

Principal interests: Research investigations and exploratory development in simulation technology and techniques, investigations and studies in the fields of training psychology, human factors and human engineering, design and engineering development of training devices, weapons system trainers and simulators, and technical data and related ancillary support materials and services.

**Naval Surface Warfare Center
Carderock Division
Contracting Department, Code 3000
Bethesda, MD 20084-5000**

(301) 227-1220

Principal interests: New vehicle concepts, ship and aircraft compatibility, ship trials and the development of vehicle technology. Areas addressed include hull form; structures; systems development and analysis; Marine Corps systems; fleet support; survivability, vulnerability, protection and weapons effects; propulsion; silencing; maneuvering and control auxiliary machinery; structural, propulsion and machinery materials; environmental effects, pollution abatement, alternate energy sources (non nuclear); logistics research and information systems; engineering development and design of specialized testing equipment; computer techniques and **software** for analysis, design and manufacturing, and numerical mechanics. Provides RDT&E support to the U.S. Maritime Administration and the maritime industry.

**Naval Aviation Depot Operations Center
Naval Air Station
Contracting Department, Code 201
Patuxent River, MD 20670-5449**

(301) 826-3326

Principal interests: Test and evaluation of aircraft weapons systems and their components.

**Naval Air Warfare Center
Aircraft Division
P.O. Box 7176, Code SUA
1440 Parkway Avenue
Trenton, NJ 08628-0176**

(609) 538-6641

Principal interests: RDT&E of aircraft propulsion systems and components and accessories and fuels and lubricants.

**Naval Air Warfare Center
Aircraft Division, Code 094
P.O.Box 5152
Warminster, PA 18974-5000**

(215) 441-2456

Principal interests: RDT&E for aircraft, airborne anti-submarine warfare and aircraft systems; systems development; composite and conventional structures; hydraulics and lubricants; nondestructive testing and coatings; environmental systems; escape systems; medical research; survival and rescue equipment; electronic warfare; avionics integration's; systems and software technology; electro-optical and electromagnetic communication.

**Naval Air WarFare Center
Aircraft Division, Code 00M, Bldg. 129
Lakehurst, NJ 08735-5028**

(908) 323-2812

Principal interests: Research, engineering, development test, evaluation, systems integration, limited production, and fleet engineering support in launching, **recovery**, and landing aids for aircraft and ground support equipment for aircraft and airborne weapons systems; and support of DoD standardization and specifications programs.

**Naval Surface Warfare Center
Crane Division, Contracting Department, Code SB
300 Highway 361, Bldg. 64
Crane, IN 47522-5000**

(812) 854-1542

Principal interests: Design, engineering, evaluation, and analysis programs required in providing support for ships and crafts, shipboard weapons systems, and expendable and non expendable ordnance items.

**Naval Air Warfare Center, Aircraft Division
Contracting Department, Code 009, MS 45
6000 East 21st Street
Indianapolis, IN 46219-2189**

(317) 353-7009

Principal interests: Avionics engineering and material acquisition support center for systems, subsystems, and components.

**Naval Surface WarFare Center
Indian Head Division
Contracts Department, Code 114D
101 Strauss Avenue
Indian Head, MD 20640-5035**

(301) 743-6604

Principal interests: Research, development, pilot manufacture, test, and evaluation and fleet support of gun propellants, cartridges, cartridge actuated devices, and weapon system simulators. Provides process development, pilot manufacture and engineering in the transition of

rocket engines and warheads from development to production. Provides design support, in-service engineering and acquisition engineering support for Navy rocket engines.

Naval Weapons Station
Supply Department, Code 113
P.O. Box 140
Yorktown, VA 23691-0140

(804) 887-4644

Principal interests: Development of weapons and explosive loading equipment.

Naval Oceanographic Office
Contracts Office, Code N4212, Bldg. 9134
Stennis Space Center, MS 39522-5001

(601) 689-8369

Principal interests: R&D in oceanographic, hydrographic, and geodetic equipment, techniques, and systems.

Naval Surface Warfare Center
Dahlgren Division, Code C6
Dahlgren, VA 22448-5000

(703) 663-4806

Principal interests: Provide RDT&E, engineering and fleet support for surface warfare systems, surface ship combat systems, ordnance, mines, amphibious warfare systems, mine countermeasures special warfare systems, and strategic systems.

Naval Surface Warfare Center
Dahlgren Division
Coastal Systems Station, Code 20D
6703 West Highway 98
Panama City, FL 32407-5000

(904) 234-4347

Principal interests: Provide RDT&E for mines and countermeasures, special warfare, amphibious warfare, diving and other naval missions that take place primarily in the coastal region.

Naval Air Warfare Center
Weapons Division, Code P65
Point Mugu, CA 93041-5000

(805) 989-8914

Principal interests: Performs test and evaluation, development and follow-on engineering; provides logistics and training support for naval weapons, weapon systems, and related devices; and provides major range, technical, and base support for fleet users and other DoD and government agencies. Functions relate to guided missiles, rockets, free-fall weapons, fire control and radar systems, drones and target drones, computers, electronic warfare devices and countermeasures equipment, range services and instrumentation, test planning simulations, and data collection.

**Naval Command, Control & Ocean
Surveillance Center
RDT&E Division, Code 02202
5370 Silvergate Avenue
San Diego, CA 92152-5113**

(619) 553-4327

Principal interests: RDT&E for command control, communications, ocean surveillance, surface and air-launched undersea weapon systems, submarine arctic warfare, and supporting techniques.

DEPARTMENT OF THE AIR FORCE

**Space and Missile System Center (SMC/BC)
155 Discovery Blvd. Suite 2017
Los Angeles AFB CA 95903-1712**

(310) 363-2855

Principal Interest: Plan, program, and manage AFSC programs to acquire space systems, subsystems, support equipment, and related hardware and software; provide for the maintenance, construction, alteration, and security of launch, tracking, and support facilities; conduct research, exploratory development, and advanced development programs to support future space missions; provide for and conduct launch and flight test and evaluation support of major DoD programs and programs of other Federal agencies; perform the functions of launch, launch control, deployment checkout prior to turnover, and sustaining engineering; perform on-orbit test and evaluation of systems, subsystems and components, discharge Air Force responsibilities for designated AF, DoD and international space programs; plan, program, and acquire test facilities and other test investments required by AFMC programs at all locations (test centers and contractor facilities); plan and provide for security on all systems and information requiring safeguards consistent with AF and DoD security directives; provide management oversight for commercial expendable launch vehicle activity; conduct launch agreement negotiations with commercial space launch operators; provide system engineering management support for selected space systems, subsystems, facilities, support equipment, and related hardware and software; support other product divisions and federal agencies with technologies derived from its subordinate laboratories.

**HQ Air Force Space Command
150 Vandenberg Street, Suite 1105
Peterson AFB, CO 80914-4350**

(719) 554-5248

Principal interests: Awards and administers contracts for AF Space Command services and associated supply requirements to support major operational defense systems, space launch operations, satellite control, and satellite operations. This includes associated engineering and technical support services, as well as local purchase requirements for the following bases:

Falcon AFB, Colorado
FE Warren AFB, Wyoming

Onizuka AFB, California
Patrick AFB, Florida
Peterson AFB, Colorado
Vandenberg AFB, California

Human Systems Center BC/(E) (AFMC)
8001 Arnold Drive
Brooks Air Force Base, TX 78235-5357

(210) 536-4348

Principal interests: Integrating and maintaining people in Air force systems and operations. People are the enabling factor in air force operations. Recognizing this, the center was established as the Air force agent for human-centered research, development, acquisition, and specialized operational support. The center prepares, maintains, protects, and enhances human capabilities and human-system performance, from the scope of the individual to the entire forces. The center works in four functional areas to meet current and future human-centered operational requirements:

- Crew-system integration
- Crew protection
- Environmental protection
- Force readiness (human resources and aerospace medicine)

The Armstrong Laboratory, Human System Program Office, the USAF School of Aerospace Medicine and an air base group are major units of the centers.

HSC also provides contract support to the Air Force Center for Environmental Excellence which provides a full range of technical services in environmental areas.

The Operational Contracting Division acquires supplies, equipment, services, construction, and utilities in support of Brooks AFB and tenance organizations.

Armstrong Laboratory
c/o Human Systems Center/BC
Brooks AFB, TX 78235-5320

(210) 536-4348

Principal interests: Ensuring that the Air force's weapon systems and the people operating them are compatible. The laboratory researches and develops technology for maintaining, protecting, and enhancing human capabilities during Air Force operations. The seven major components of the Armstrong Laboratory and its related technical concerns are:

Aerospace Medical Research Laboratory Directorate, Wright-Patterson AFB, OH, conducts and directs R&D in aerospace biotechnology. Activities are directed toward advancing technology in man-machine integration, physiological tolerances, protection requirements, toxic hazards, and the influence of noise, vibration, and acceleration.

School of Aerospace Medicine (SAM) plans and conducts R&D on work dealing with applied aeromedical research including medical education and training clinical evaluation/consultations, and special support activities.

Human Resources Directorate conducts exploratory and advanced development programs for manpower and personnel., operational and technical training, simulation, and logistics systems in four research divisions. Their goal is to assist the Air Force in achieving the best methods for acquiring enlisted and officer members; training and maintaining this force at peak readiness.

Occupational and Environmental Health Directorate provides professional consultation, specialized laboratory services, and operational field support to assist the Air Force in meeting its worldwide responsibilities in the management of occupational, radiological, and environmental health problems. It is a technical center for the Air Force’s Installation Restoration Program and host for the Air Force Radiation Assessment Team.

Human Systems Program Directorate conducts advanced and full-scale development and acquisition programs in crew-system integration, personnel protection, air base support, computer based training systems, and clothing design in response to Air force needs. This office is also responsible for **aeromedical** casualty, manpower, and personnel programs; advanced anti-G system for fighter aircraft, life **support/survival** equipment, chemical defense, hazardous waste cleanup, integrated air crew protection, space crew enhancement technology, cockpit design, helmet mounted systems (night vision, etc.), crew escape technology, and noise (sonic boom impact) technology.

Science, Technology and Operational **Aeromedical** Support Program **Office** develops technology for future war fighting capabilities by generating the strategy to produce the enabling human centered technology options.

Testing Directorate implements the Air Force drug abuse program, conducts testing for known drugs of abuse, such as cocaine, amphetamines, barbiturates and marijuana for CONUS Air Force members and Army personnel in the South Central U. S., as well as research and testing on other drugs to ensure drug users are deterred from switching to substances not currently being analyzed.

Phillips Laboratory (PL/BC)
3651 Lowry Ave., SE, Bldg. 499, Room 100
Kirtland AFB, NM 87117-5777

(505) 846-8515

Principal interests: Provides contracting support to its own activities, which include the following laboratories:

PL/GP	Geophysics	PL/WS	Adv Weapons and Surveillance
PO/RK	Propulsion	PUSX	Space Experiments
PL/VT	Space and Missile Technology		
PL/LI	Lasers and Imaging		

In addition, support is provided in the areas of Identification, Friend, Foe or Neutral (IFFN), Data Link Vulnerability Joint Test Force (DVAL), Air Force Operational Test and Evaluation Center (AFOTEC), Command, Control and Communications Center Measures (C3CM), Defense Advance Research Projects Agency (DARPA), Strategic Defense Initiatives (SDI), and the Army Office of Missile Electronic Warfare (OMEW) for acquisition of research and development projects and major support contracts.

The Phillips Laboratory establishes and maintains comprehensive in-house resources for research, development, testing, and evaluation; manages activities of the various Phillips Laboratory centers; integrates technology products and conducts configuration research; develops and tests experimental space systems and subsystems, non conventional and advanced weapons, and rocket propulsion systems to acquire design data and demonstrate new and integrated technology; acts as focal point or lead organizations; acts in coordination with space test programs; advocates and sponsors space experimentation and test of assigned technologies in space

Wright Laboratory
Directorate of R&D Contracting (ASC/BSC)
Aeronautical Systems Center,
2530 C Street, Bldg. 7
Wright-Patterson AFB, OH 45433-6503

(513) 255-3825

Principal interests: This directorate provides business and contracting support for Wright Laboratory (WL). Contracts are written for requirements of the following directorates:

Aero Propulsion and Power Directorate is responsible for development of airbreathing propulsion and aerospace power technology needed for future Air Force systems, as well as providing assistance to the “product divisions” of AFMC in acquiring new systems, and in helping to resolve developmental and operation problems.

Avionics Directorate conducts R&D programs for aerospace reconnaissance, weapons delivery, electronic warfare systems, navigation, communication and avionics integration.

Solid State Electronics Directorate is responsible for electronic device R&D for future Air Force systems needs in the areas of microelectronics, microwaves, and electron-optics. Research extends from fundamental semiconductor layer growth and device fabrication through analog and digital integrated circuits; also included is the computer-aided design software and work stations needs to pursue sample hybrid and monolithic integrated circuits.

Flight Dynamics Directorate pursues Air Force flight vehicle technologies to support aircraft, missiles and space systems in the technical areas of structures, vehicle subsystems, flight control, aeromechanics and experimental flight vehicle testbeds.

Materials Directorate explores new materials and processes for advanced aerospace applications. Its current focus is on thermal protection materials, metallic and nonmetallic

structural materials, aerospace propulsion materials, fluids and lubricants, electromagnetic and electronic materials and laser hardened materials.

Manufacturing Technology Directorate focuses on process technologies and integrated manufacturing. This Directorate is responsible for a new initiative which integrates design and manufacturing technologies to stimulate a new focus on design for producibility, design for quality and design for life cycle costs.

Key elements of this concurrent engineering involve development of advanced tools in computer-aided design and computer aided manufacturing for analyses of design for weapon performance and low cost manufacturing.

Plans and Programs Directorate focuses on cockpit integration, which involves research to advance the state of the art crew systems technologies for all classes of aerospace vehicles; and signature technology, which includes planning, formulating, and executing USAF exploratory and advanced development programs for vehicle signature reduction technology and counter low observable technology.

Armament Directorate develops conventional armament technology and integrates these technologies into air vehicle platforms and other delivery platforms. The Directorate provides conventional armament technology for four major thrusts that include advanced guidance, weapon flight mechanics, ordnance, and conventional strategic defense.

Air Force Freight Test Center (AFFTC/BC)
5 South Wolfe Ave, Bldg. 2800, Room 2
Edwards AFB, CA 93524-1185

(805) 277-2619

Principal interests: Tests and evaluation of new and research aircraft. Provides contracting support necessary to accomplish the test mission and to provide operational support for base personnel/facilities, including the USAF Test Pilot School. Test mission procurements include telemetry equipment; flight test instrumentation; computer hardware and software; engineering, scientific and technical services, including management of the Edwards AFB Range and the Utah Test and Training Range; precision milling machines; aircraft maintenance; and radar components. Support to the test pilot school includes contracting for simulator training, glider training, and flight training/lectures.

The AFFTC Contracting Center provides containing support to the Propulsion Directorate of the Phillips Laboratory, a major tenant. Propulsion Directorate requirements include basic research, exploratory development and advanced development for strategic, tactical and space system propulsion. The Directorate also contracts for multiple space vehicle technologies including structures, structure dynamics, controls and power systems and is heavily involved in the Space Defense Initiative (SDI) program.

The Operational Contracting Division contracts for supplies, equipment, and work necessary for the operation and maintenance of Edwards AFB.

Electronic Systems Center (ESC/BC)

(617) 377-4973

275 Randolph Road
Hanscom AFB, MA 01731-5000

Principal interests: Plans and manages the acquisition and related engineering development of command, control, communications, and intelligence electronic systems, subsystems and equipment, including surveillance systems, navigation systems, traffic control and landing systems, intelligence systems, electronic physical security surveillance and intrusion detection systems and weather systems, and information and management systems. Evaluates command requirements against available technology and potential costs and recommends necessary revisions. R&D contracts are also initiated by Geophysics Laboratory of the Phillips Laboratory (PL) in the environmental physical and engineering sciences.

The Geophysics Directorate performs research and **exploratory** and advanced development in geophysics that is essential to the enhancement of AF operational capabilities. The work includes: space physics, ionospheric physics, terrestrial science, upper atmospheric and stratospheric operations, **optical/IR** backgrounds and targets, weather specification and prediction. Close liaison is maintained with AF operational elements, system development activities, and other Air Force laboratories, to identify research and technology needs and to accelerate the integration of scientific advances into AF technology. The Geophysics Directorate carries out its assigned R&D mission responsibilities with in-house as well as contractual support.

While there are no Air Force aircraft assigned to Hanscom AFB, the operational contracting directorate does contract for all other work necessary for the operation and maintenance of the base.

Rome Air Development Center
26 Electronic Parkway
Griffis AFB, NY 13441-4514

(315) 330-4020

Principal interests: Specializes in the development of technologies for command, control, communications and intelligence systems. Develops AF command and control systems, advanced computers and microchips, communication devices and techniques, software engineering, intelligence gathering and processing devices, surveillance systems, advanced radars, super conductivity, infrared sensors, cryogenics, artificial intelligence applications, and related technologies. Rome Air Development Center is the AF Center of Excellence in photonic research and the DoD focal point for reliability and compatibility.

Air Force Development Test Center
205 West D Ave., Suite 449
Eglin Air Force Base, FL 32542-6863

(904) 882-2843

Principal interests: Plans, directs, and conducts test and evaluation of non-nuclear munitions, electronic combat, and navigation/guidance systems. Related ASD System Program Offices (SPOs) are also located here and supported by AFDTC/BC. AFDTC manages the large land test ranges that are located on the 724 square mile Eglin complex, as well as the 86,500 square miles of water ranges located in the adjacent Gulf of Mexico. Major test on or above AFDTC'S ranges cover aircraft systems, subsystems, missiles, guns, rockets, targets and drones,

high-powered radars, and electronic countermeasures equipment. AFDTC'S unique assets include the Guided Weapons Evaluation Facility, the Preflight Integration of Munitions and Electronic Systems and the McKinley Climatic Laboratory, a facility capable of testing military hardware as large as aircraft in environments ranging from minus 65 to plus 165 degrees Fahrenheit with 100 mph winds, icing clouds, rain, and snow. AFDTC also is responsible for the 6585th Test Group at Holloman AFB, NM. Among its unique facilities are a ten mile high speed test track, two radar target scatter measurement facilities, and the Central Inertial Guidance Test Facility.

Arnold Engineering Development Center (BC)
100 Kindel Drive, Suite A332
Arnold Air Force Base, TN 37389-5000

(615) 454-7841

Principal interests: Provides aerodynamics R&D of power plants related to operation and test of air breathing propulsion systems (turbojet, ramjet, and turboprop); simulation of conditions of atmospheric, ballistic, orbital, and space flight; problems associated with high temperature materials; unique mechanical, electrical, and thermodynamic problems related to the construction of wind tunnels; high altitude propulsion test cells; space simulation chambers; impact and ballistic ranges and research units. Procures pumps, compressors (axial and centrifugal); compressors, rotors, and diffusers; high pressure airducting; wind tunnel accessories; test instrumentation; electromagnetic generators; test facility construction and modernization; high speed cameras; high temperature materials, cores, and bricks; architectural engineering services; ADP equipment; laboratory equipment; shop machinery.

Air Force Civil Engineering Center
Support Agency
Tyndall AFB, FL 32401

(904) 882-2843

Principal interests: AFDTC contracts for the Air Force Engineering Service Center (AFESC). AFESC conducts planning, engineering development, investigative/applications engineering, and specialized civil engineering functions to enhance the technology and capabilities of AF civil engineering. The Center's capability complements the integral capabilities of major air commands, base level civil engineering organizations, and the civil engineering R&D community. The Center manages applied technology programs and introduces new technology into civil engineering operations through translation of state of the art research into usable systems, hardware, and techniques. Specific programs and areas of interest are mobility shelters; pre-engineered and relocatable facilities; modular facilities; snow and ice removal equipment and materials; corrosion abatement techniques and materials; fire/crash rescue equipment and materials; and other facilities, equipment materials, and techniques with potential application to the overall AF civil engineering area.

AF, Office of Scientific Research
Boiling AFB, Room 410
Washington, DC 20322-6488

(202) 767-5009

AFOSR encourages and supports fundamental research designed to increase the understanding of the natural sciences and to stimulate the recognition of new scientific concepts. Particularly

desired is the original and unique scientific approach likely to clarify or extend understanding of the sciences which are of interest to the principal technical directorates of AFOSR.

Directorate of Aerospace Sciences (NA)

(202) 767-4987

Aerospace Sciences: Areas of interest include fluid mechanics; **boundary** layer research, turbulence, unsteady flows; structural mechanics; durability; mechanics of composites; plasma energetic; ignition, combustion and detonation; combustion dynamics of rockets; and diagnostics in reacting flows.

Directorate of Chemical and Atmospheric Sciences (NC)

(202) 767-4960

Chemical Sciences: Areas of interest include chemical techniques; surface chemistry; structural chemistry; molecular dynamics; chemical reactivity and synthesis; **microstructural** and mechanical properties of alloys and nonmetallic materials.

Directorate of Electronic and Material Sciences (NE)

(202) 767-4984

Electronic and Solid State Sciences: Area of interest include physical electronics including quantum and solid state electronics; electronic and optical properties of solids; surface and interface properties of materials; thin film sciences; communications and signal processing. Optical physics; x-ray optics; short wavelength lasers; charged **particle** and neutral particle beams; high power microwaves; quantum physics; new superconducting materials; plasma physics; atomic and molecular physics; pulse power switching; new energy sources; atom-surface interactions.

Directorate of Life and Environmental Sciences (NL)

(202) 767-4278

Life Sciences: Areas of interest include basic research in selected areas of neuroscience (regulation of neuronal responsiveness, neurobiology of learning and memory); sensory information processing (visual and auditory psychophysics, higher-order aspects of perception); brain activity and mental workload, and toxic hazards from occupational exposure to chemicals and electromagnetic radiation; geophysics; and space physics; meteorology, upper atmosphere structure and dynamics.

Directorate of Mathematical and Information Sciences (NM)

(202) 767-5025

Mathematical and Information Sciences: Mathematics of dynamics and control; computer science; mathematics of computation; mathematics of physical, chemical, and biological systems; statistics and probability; mathematics of signal processing and communication; artificial intelligence; mathematical optimization; applied analysis; and finite mathematics; **electro-magnetics**, and neural computation systems.

Directorate of Physical and Geophysical

(202) 767-4904

Sciences (NP)

Physics: Areas of interest include optical physics; x-ray optics; short wavelength lasers; charged particle and neutral particle beams; high power microwaves; quantum physics; new superconducting materials; detonation physics; plasma physics; atomic and molecular physics; geophysics; space physics; pulse power switching; new energy sources; atom-surface interactions.

Industrial concerns and nonprofit organizations having research capabilities in major scientific fields may submit basic research proposals. Small business concerns engaged in basic research are encouraged to write AFOSR, AITN: BC, for literature which describes scientific areas of interest. Any scientific investigator may make a **preliminary** inquiry to obtain advice on the degree of interest in his or her area of research or may submit an unsolicited research proposal.

A proposal should indicate the field of investigation and the objectives sought, describing previous work and related grants or contracts held, if any. In addition, it should outline the approach planned for the research and should include estimates of the time and cost requirements. The principal investigator should be named and an outline of his or her professional background included. Each proposal will be evaluated by the appropriate Directorate from the standpoint of its probable value to the AF basic research program, of the current availability of funds, and of other relevant factors. In some cases it may be necessary for the Directorate to request additional details prior to rendering a decision as to sponsorship.

Directorate of Education, Academic and Industry Affairs (NI)

(202) 767-5013

Small Business Innovation Research (SBIR): NI manages AFOSR'S SBIR program. Specific research topics are selected for each solicitation. Industrial concerns and nonprofit organizations having research capabilities in major scientific fields, and whose personnel include competent scientific investigators, may submit basic research proposals. Small business concerns engaged in basic research are encouraged to write AFOSR, Attention: BC, for literature which describes scientific areas of interest. Any scientific investigator may make a preliminary inquiry to obtain advice on the degree of interest in his or her area of research or may submit a specific unsolicited research proposal.

A proposal should indicate the field of investigation and the objectives sought describing previous work and related grants or contracts held, if any. In addition, it should outline the approach planned for the research and should include estimates of the time and cost requirements. The principal investigator should be named and an outline of his or her professional background included.

Each proposal will be evaluated by the appropriate Director from the standpoint of its probable value to the Air Force basic research program, of the current availability of funds, and of other relevant factors. In some cases, it may be necessary for the Directorate to request additional details prior to rendering a decision as to sponsorship.

ADVANCED RESEARCH PROJECTS AGENCY

The Advanced Research Projects Agency (ARPA) is the central research and development organization for the **Department** of Defense (DoD). It manages and directs selected basic and applied research and development projects for DoD, and pursues research and technology where risk and payoff are both very high and where success may provide dramatic advances for traditional military roles and missions and dual-use applications.

ARPA's primary responsibility is to help maintain U.S. technological superiority and guard against unforeseen technological advances by potential adversaries. Consequently, the ARPA mission is to develop imaginative, innovative, and often high risk research ideas offering a significant technological impact that will go well beyond the normal evolutionary developmental approaches; and to pursue these ideas from the demonstration of technical feasibility through the development of prototype systems.

The challenge of the ARPA mission is met by a small group of technical program managers with flexibility for quick implementation of R&D initiatives. The current ARPA Technical Program has been organized around the following major thrusts, selected because of their importance to national defense and dual-use applications.

- Technology Reinvestment Project
- High Performance Computing
- Advanced Simulation
- Smart Weapons
- Microelectronics Production Technology
- Joint Biomedical Technology Program
- Acoustic Warfare and Submarine Stealth
- Software and Intelligent Systems
- Advanced Satellite Technology
- Special Materials

Entities seeking R&D support from ARPA should explore the Agency's interests in research by reviewing sources such as the Commerce Business Daily (CBD), open literature, published testimony before Congressional committees, and the Department of Defense Small Business Innovation Research (SBIR) Program Solicitation. Inquiries regarding ARPA technologies may be addressed to:

Director
Advanced Research Projects Agency
3701 North Fairfax Drive
AITN: OASB
Arlington, VA 22203-1714

(703) 696-2448

Defense Technical Information Center
5010 Duke St., Bldg. 5
Cameron Station
Alexandria, VA 22304-6145

(703) 274-6903
Toll-free:
(outside DC area)
1 (800) DOD SBIR

DoD's central facility for the distribution of scientific and technical reports generated by defense-funded efforts in virtually all areas of R&D; operates computer-based data bank of management and technical information and is responsible for the development of information storage and retrieval systems. Data banks cover the past, present, and future defense R&D programs. The services offered are available to defense and other federal activities and to all their contractors, subcontractors, and grantees.

GUIDE FOR PREPARING UNSOLICITED PROPOSALS

An unsolicited proposal is a written proposal independently originated and developed by the offeror and submitted to DoD for the purpose of obtaining a contract. To be considered for acceptance, an unsolicited proposal must be innovative and unique and in sufficient detail to allow a determination that DoD support would benefit the agency's mission responsibilities. An unsolicited proposal is not a response to an agency request or an advance proposal for an agency requirement that could be met by competitive methods.

There is no particular format to be followed in preparation of unsolicited proposals. Elaborate proposals are discouraged. The proposal should contain the following information to permit consideration in an objective and timely manner:

Basic Information. Offeror's name, address, and type of organization; e.g., profit, nonprofit, educational, small business, minority business, women-owned business.

Names and telephone numbers of technical and business personnel to be contacted for evaluation or negotiation purposes.

Names of other Federal, State, and local agencies, or other parties, if any, receiving the proposal or funding the proposed effort.

Date of submission and signature of a person authorized to represent and contractually obligate the offeror.

Technical Information. A concise, descriptive title and an abstract (200-300 words) stating the basic purpose, summary of work, and expected end result of the proposed effort.

A reasonably complete narrative in which the relevance of the proposed work to the DoD mission is discussed. State the problems to be addressed; the specific objectives of the research, and the expected consequences of successful completion of the research, including potential economic and other benefits.

Provide a full and complete description of the work to be performed, the method of approach, and the extent of effort to be employed. Indicate an estimated period of time in which to accomplish the objectives, and criteria by which success of the project can be evaluated,

Names and biographical information on the key personnel who would be involved in the project.

Any support needed from the agency; e.g., facilities, equipment, material.

Supporting Information. A breakdown of the proposed cost or price in sufficient detail for meaningful evaluation. Show the estimated cost of materials and how you established it.

Show the estimated costs of labor by **category** (engineering, manufacturing, test, etc.) and show the salary rates for each category. Show the indirect expense rates (manufacturing and engineering overheads, general and administrative expenses) to be applied. Explain the basis for the labor and indirect expense rates included in your cost breakdown (e.g., current experienced rates, projected from current experience, budgetary, etc.). Identify and explain the basis for any other cost elements included in your proposal.

A statement as to the proposed duration of the effort, the type of contract preferred, and the length of time for which the proposal is valid (a 6 month minimum is suggested).

A brief description of any previous or ongoing R&D work **performed** in the field or in related fields. Describe briefly the facilities and any special equipment available to perform the proposed effort.

Unsolicited proposals may include proprietary data which the offeror does not want disclosed to the public or used by the Government for any purpose other than proposal evaluation. DoD cannot assume responsibility for use of such data unless it is specifically and clearly marked with the following legend on the title page:

Use and Disclosure of Data

The data in this proposal shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed in whole or in part for any purpose other than to evaluate the proposal; provided that if a contract is awarded to the offeror as a result of or in connection with the submission of these data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the contract. This restriction does not limit the Government's right to use information contained in the data if it is obtainable from another source without restriction. The data subject to this restriction are contained in Sheets.

Each restricted sheet should be marked with the following legend: "Use or disclosure of proposal data is subject to the restriction on the title page of this proposal."